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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/506,808 | 09/07/2004 | Toshiyuki Uehara | L9289.04156 | 7003 |

24257 7590 06/27/2007
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| EXAMINER |
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PEREZ, ANGELICA

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| ART UNIT | PAPER NUMBER |
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2618

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| MAIL DATE | DELIVERY MODE |
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06/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/506,808

Applicant(s)

UEHARA ET AL.

Examiner

Perez M. Angelica

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>9/7/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen, Tao (Chen, US 20040002341A1).

Regarding claim 6, Chen teaches of a communication terminal apparatus comprising (paragraph 49): a transmission power setting section that sets transmission power of packet data transmitted by a channel for packet data transmission based on transmission power command information indicating transmission power instructed by a communicating terminal extracted from received data (paragraphs 55 and 52, where the BS transmits the power commands indicating the required transmit power and the MS receives it in its receiver); a transmission parameter deciding section that sets a

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transmission parameter based on information of a transmission parameter relating to a transmission rate of packet data extracted from received data (paragraph 51, where the particular transmit power per bps and the BER or FER can be included as parameters to calculate the desired power and reach the target signal quality); and a transmitting section that transmits the packet data using the set transmission power and transmission parameter (paragraph 51, where in order to transmit the parameters and the set power, the MS requires a transmitter).

Regarding claim 7, Chen teaches all the limitations of claim 6. Chen further teaches of a transmitting section that transmits information of transmission power of the dedicated channel (paragraph 51, where in order to transmit, the MS requires a transmitting portion); and a storing section that is the same as that of a communicating terminal to store a relationship between the transmission parameter and an offset value of transmission power of the dedicated channel (paragraph 51, where the "path loss corresponds to an offset value related to a transmit power and where the particular transmit power per bps and the BER or FER can be included as parameters to calculate the desired power and reach the target signal quality, and where in order to do the calculations the MS requires at least a memory to provisionally store the data and results), where the transmission power deciding section sets transmission power obtained by adding the offset value corresponding to the transmission parameter stored in the storing section to transmission power of the dedicated channel as transmission power of the packet data using information of the transmission parameter (paragraph

51, where the offset is included, given a broad interpretation to the claim the information is "added" to the power parameter stored).

Regarding claim 8, Chen teaches all the limitations of claim 6. Chen further teaches where the transmission power setting section sets transmission power of the packet data to avoid exceeding an upper limit value when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel exceeds the upper limit value (paragraphs 51 and 71-72, where the difference of a "second" measurement subtracted from an upper value limit value (threshold) provides an offset value and where multiple measurements and estimations, including a second estimation, are performed due to the changing conditions of the channel, and where the required power can be the indicator of a maximum power required in order to avoid waste of resources); and where the transmission parameter deciding section sets such a transmission parameter by which the communicating terminal can receive the packet data with a predetermined quality when the packet data is transmitted using transmission power set by the transmission power setting section (paragraph 51, where the offset is included, given a broad interpretation to the claim the information is "added" to the power parameter stored).

Regarding claim 9, Chen teaches all the limitations of claim 6. Chen further teaches where further comprising: a transmission parameter information inserting section that inserts the transmission parameter information into packet data (paragraph 51, where in order to transmit the parameters and the set power, the parameters need

to be inserted in a slot, thus requiring an "information inserting section"); and a transmission control section that controls packet data to prevent being transmitted when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel exceeds an upper limit value and controls packet data to be transmitted using the inserted transmission parameter information as a pilot signal when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel is below the upper limit value (paragraphs 51 and 71-72, where software is programmed to follow certain instructions and where if it is programmed to obey a certain threshold "upper level", the information won't be sent because the conditions are not as required).

Regarding claim 10, Chen teaches all the limitations of claim 6. Chen further teaches where the transmission power setting section sets transmission power being larger than transmission power instructed by the transmission power command information to avoid exceeding an upper limit value when transmission power obtained by adding transmission power of packet data instructed by the transmission power command information to transmission power of the dedicated channel is below the upper limit value (paragraphs 51 and 71-72, where all factors considered are taken into account and where the additional power accounts for the additional information sent); and where the transmission parameter deciding section sets such a transmission parameter by which the communicating terminal can receive the packet data with a

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predetermined quality when the packet data is transmitted using transmission power set by the transmission power setting section (paragraph 51, where the particular target level of performance can be obtained with the required particular power).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Schuichi, Nakano (Schuichi, JP Abstract 08-280064

Regarding claims 1-4 and 11, Chen teaches of a base station apparatus comprising (figure 1, Base station 1, 2 and 3): a scheduling section that allocates a communicating terminal to transmit packet data), reception quality of the dedicated channel (paragraph 48), and a transmission power deciding section that decides transmission power of packet data transmitted using a channel for packet data transmission from the communicating terminal based on the quality (paragraphs 48, 51-52, where the signal quality is quantified as energy-per-bit-to-total-received-power density ratio; and where the power is decided taking into account the quality of the channel and the "particular amount of transmit power" corresponds to the decided transmit power); a transmission parameter deciding section that decides a transmission parameter relating to a transmission rate of the packet data based on the reception power, (paragraphs 51, where the parameters can be the E/I or the FER or the PER or

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the path loss or power thresholds); and a notifying section that notifies a communicating terminal allocated by the scheduling section of transmission power command information that instructs transmission of the packet data using the decided transmission power and information of the transmission parameter (paragraphs 51-52 and 54, where the power control commands sent by the BS communicate the power control commands about the required power and its parameters to achieve a reliable data transmission).

Chen does not explicitly teaches of a transmission power setting method and of scheduling based on reception power of a dedicated channel, first transmission power as transmission power of the dedicated channel of each communicating terminal, and a transmission power deciding section that decides transmission power of packet data transmitted using a channel for packet data transmission from the communicating terminal based on the reception power and first transmission power

In related art concerning a transmission power control method in a mobile communication system, Schuichi teaches of scheduling based on reception power of a dedicated channel (abstract, e.g. "signal strength field"), first transmission power as transmission power of the dedicated channel of each communicating terminal (abstract, e.g., "initial transmission power" and page 1, paragraph 5, "control channel"), and a transmission power deciding section that decides transmission power of packet data transmitted using a channel for packet data transmission from the communicating terminal based on the reception power and first transmission power (abstract, "outgoing initial transmission power").

Regarding claim 2, Chen and Schuichi teach all the limitations of claim 1. Chen further teaches where the transmission power command information comprises information indicating transmission power of the packet data (paragraphs 5 and 54, where the commands indicate information about the power level required for the packet data utilized in CDMA systems).

Regarding claim 3, Chen and Schuichi teach all the limitations of claim 1. Chen further teaches where the transmission power command information comprises information indicating an offset value to transmission power of the dedicated channel (paragraph 51, where the "path loss" corresponds to an offset value related to a transmit power).

Regarding claim 4, Chen and Schuichi teach all the limitations of claim 1. Chen further teaches where the transmission power deciding section calculates transmission power usable to transmit packet data within a range of a value obtained by subtracting the second transmission power from a transmission power upper limit value of the communicating terminal (paragraph 51 and 71-72, where the difference of a "second" measurement subtracted from an upper value limit value (threshold) provides an offset value and where multiple measurements and estimations, including a second estimation, are performed due to the changing conditions of the channel); and where the transmission parameter deciding section decides such a transmission parameter by which the packet data can be received with predetermined quality using transmission power calculated by the transmission power deciding section (paragraphs 48 and 72) Schuichi further teaches where further comprising a transmission power estimating

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section that estimates second transmission power as transmission power of the dedicated channel at the time of transmitting packet data in a communicating terminal using reception power (paragraph 11, where the BS performs multiple measurements and estimations because of the changes in channel condition, including a second estimation power measurement).

5. Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, Tao (Chen, US 20040002341A1) in view of Schuichi and further in view of Masashi Naito (Masashi, JP Patent abstract 10-041876).

Regarding claim 5, Chen and Schuichi teach all the limitations of claim 1.

Chen and Schuichi do not specifically teach of a demodulation section that receives packet data transmitted to include information of the transmission parameter in a communicating terminal to demodulate information of the transmission parameter as a pilot signal.

In related art concerning a method and system for adaptive modulated transmission, Masashi teaches of a demodulation section that receives packet data transmitted to include information of the transmission parameter in a communicating terminal to demodulate information of the transmission parameter as a pilot signal (abstract, where the information received is control information, thus pilot signal information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Chen's and Schuichi's combined base station

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scheduling method with Masashi's demodulation section in order to demodulate the received control information, as taught by Schuichi.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 6:00 a.m. - 2:30 p.m., Monday - Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.



Angelica Perez
Examiner



Matthew D. Anderson
Supervisory Patent Examiner

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June 18, 2007